AMENDMENTS TO THE CLAIMS

1.   (Currently Amended) An electronic control apparatus,
comprising:

a storage portion;

a memory portion in said storage portion;

a security flag portion in said storage portion;

said memory portion being in at least one of an initial state and a
written state;

said written state ~~exiting~~ existing on a successful writing to said
memory portion;

said initial state existing on at least one of an unsuccessful writing to
said memory portion and an unwritten state of said memory portion;

said security flag portion indicating a status of said memory portion as
being in said at least one state;

~~a~~ an electronic control portion for controlling communication with
said storage portion;

said electronic control portion including means for controlling, on a
basis of said status, one of a writing and a rewriting to said memory
portion according to an external standard having a delay portion; ~~and~~

said electronic control portion further including means for bypassing
said delay portion when said security flag portion indicates said status as
being in said initial state, whereby said electronic control portion avoids
said delay portion;

said means for controlling comprises:

a first means for setting a process flag in said storage portion
representing said at least one state;

a second means for causing said electronic control portion to
start measuring a delay time;

a third means for causing said data rewrite portion to request a seed data from said electronic control portion;

a fourth means for causing said electronic control portion to return said seed portion to said data rewrite portion;

a fifth means for causing said data rewrite portion to calculate a security password based upon said seed and transmit said security password to said electronic control portion;

a sixth means for causing said electronic control portion to review said process flag;

said first means requiring said electronic control portion to collate said security password when said process flag indicates said unwritten state;

said second means for requiring said electronic control portion to require said predetermined delay time when said process flag indicates said written state;

means for writing to said storage portion;

means for determining whether said writing is complete; and

means for updating said process flag upon said complete writing into said storage portion, whereby said process flag represents said other of said state.

2.   (Currently Amended) An electronic control system, comprising:

an electronic control portion;

a storage portion in said electronic control portion;

said storage portion effective for storing operational data;

said storage portion being in one of at least an unwritten state and a written state;

first means for setting said written state as a first status existing upon a successful writing to said storage portion;

second means for setting said unwritten state as a second status existing upon at least one of an unsuccessful writing to said storage portion and an initial storage portion;

means for writing and rewriting to said storage portion according to a security standard requiring at least a delay time before permitting said writing to said storage portion; and

a security bypass means in said electronic control system for identifying said at least one state and allowing said means for writing and rewriting to bypass said delay time where said unwritten state exists, whereby said means for writing and rewriting can write to said storage portion without said delay time;

wherein said means for writing and rewriting comprises:

a first means for setting a process flag in said storage portion representing said at least one state;

a second means for causing said electronic control portion to start measuring a delay time;

a third means for causing said data rewrite portion to request a seed data from said electronic control portion;

a fourth means for causing said electronic control portion to return said seed portion to said data rewrite portion;

a fifth means for causing said data rewrite portion to calculate a security password based upon said seed and transmit said security password to said electronic control portion;

a sixth means for causing said electronic control portion to review said process flag;

said first means requiring said electronic control portion to collate said security password when said process flag indicates said unwritten state;

said second means for requiring said electronic control portion to require said predetermined delay time when said process flag indicates said written state;

means for writing to said storage portion;

means for determining whether said writing is complete; and

means for updating said process flag upon said complete writing into said storage portion, whereby said process flag represents said other of said state.

3.   (Original) An electronic control system, according to claim 2, further comprising:

a security flag in said storage portion and said means for writing and rewriting effective to indicate said at least on state;

a first control portion in said electronic control portion;

a first communication section in said electronic control portion; and

said first control portion effective to read said operational data from said storage portion and control said electronic control portion.

4.   (Original) An electronic control system, according to claim 3, further comprising:

a second control portion in said data rewrite portion;

a second communication section in said data rewrite portion; and

said second control portion effective to receive said operational data and transmit said operational data from said second communication section to said first communication system, whereby said electronic control portion is easily updated.

5.   (Canceled)

6.   (Currently Amended) An electronic control system, comprising:

a control portion;

a data rewrite portion in communication with said control portion;

at least a storage portion in said control portion;

said storage portion effective for storing operational data and being in one of at least an unwritten and a written state wherein said written state exists upon a successful input of said operational data;

means for writing said operational data from said data rewrite portion to said storage portion according to a security standard requiring at least a password calculation, a password collation, and a delay time before

said means for writing may write to said storage portion; and

a security bypass means in said electronic control system for identifying said one of said unwritten state and said written state and allowing said means for writing and rewriting to bypass said delay time when said unwritten state exists;

wherein said means for writing comprises:

a first means for setting a process flag in said storage portion representing said at least one state;

a second means for causing said electronic control portion to start measuring a delay time;

a third means for causing said data rewrite portion to request a seed data from said electronic control portion;

a fourth means for causing said electronic control portion to return said seed portion to said data rewrite portion;

a fifth means for causing said data rewrite portion to calculate a security password based upon said seed and transmit said security password to said electronic control portion;

a sixth means for causing said electronic control portion to review said process flag;

said first means requiring said electronic control portion to collate said security password when said process flag indicates said unwritten state;

said second means for requiring said electronic control portion to require said predetermined delay time when said process flag indicates said written state;

means for determining whether said writing is complete; and

means for updating said process flag upon said complete writing into said storage portion, whereby said process flag represents said other of said state.

7.   (Currently Amended)   An electronic control apparatus subject to a delay time requirement during complete updates, comprising:

an electronic control portion in said electronic control apparatus;

an external data rewrite portion in updating communication with said electronic control portion effective to update said electronic control portion;

at least a storage portion in said electronic control portion;

said storage portion effective for storing operational data;

said storage portion being in one of at least an unwritten and a written state;

said written state existing upon a successful input of said operational data;

means for writing and rewriting said operational data from said external data rewrite portion to said storage portion according to a security standard requiring at least a predetermined delay time before permitting writing of said operational data to said storage portion; and

security bypass means in said electronic control apparatus for identifying said one of said unwritten state and said written state and allowing said means for writing and rewriting to bypass said

predetermined delay time when said unwritten state exists, whereby said means for writing and rewriting can write said operational data to said storage portion quickly;

wherein said means for writing and rewriting comprises:

a first means for setting a process flag in said storage portion representing said at least one state;

a second means for causing said electronic control portion to start measuring a delay time;

a third means for causing said data rewrite portion to request a seed data from said electronic control portion;

a fourth means for causing said electronic control portion to return said seed portion to said data rewrite portion;

a fifth means for causing said data rewrite portion to calculate a security password based upon said seed and transmit said security password to said electronic control portion;

a sixth means for causing said electronic control portion to review said process flag;

said first means requiring said electronic control portion to collate said security password when said process flag indicates said unwritten state;

said second means for requiring said electronic control portion to require said predetermined delay time when said process flag indicates said written state;

a means for writing to said storage portion;

a means for determining whether said writing is complete; and

a means for updating said process flag upon said complete writing into said storage portion, whereby said process flag represents said other of said state.

8.   (Currently Amended)   A method of writing and rewriting operational data to an electronic control apparatus subject to a delay time standard, comprising the steps of:

setting a security flag in said electronic control apparatus to represent a state where operational data has not been correctly written a first time to said electronic control apparatus;

causing said electronic control apparatus to initiate a power on state;

sending operational data from a rewrite apparatus to said electronic control apparatus;

causing said electronic control bypass said delay time standard where said security flag indicates that said operational data has not been correctly written a first time;

writing said operational data into a memory portion of said electronic control apparatus;

causing said electronic control apparatus to decide if said writing was successful and complete;

where said writing was successful and complete, setting said security flag to indicate a correctly written update thereby causing future updates to undergo said delay time; and

where said writing was unsuccessful, maintaining said security flag without change to avoid said delay time;

wherein said means for writing and rewriting further comprises the steps of:

setting a process flag in said storage portion representing said at least one state;

causing said electronic control portion to start measuring a delay time;

causing said data rewrite portion to request a seed data from said electronic control portion;

causing said electronic control portion to return said seed portion to said data rewrite portion;

causing said data rewrite portion to calculate a security password based upon said seed and transmit said security password to said electronic control portion;

causing said electronic control portion to review said process flag;

requiring said electronic control portion to collate said security password when said process flag indicates said unwritten state;

requiring said electronic control portion to require said predetermined delay time when said process flag indicates said written state;

writing to said storage portion;

determining whether said writing is complete; and

updating said process flag upon said complete writing into said storage portion, whereby said process flag represents said other of said state.

9.   (Currently Amended)   An onboard electronic control apparatus comprising:

a storage unit;

an external data rewrite system;

said storage unit allowing data written in one of an initial state and a written state to be rewritten in accordance with a predetermined data rewrite standard by communication with said external data rewrite apparatus;

a processing flag in said storage unit representing whether said storage unit is in one of said initial state and said written state;

a control unit in controlling communication with said storage unit;

said control unit controlling said storage unit on a basis of said processing flag effective to allow a first successful data write to said storage unit in said initial state and bypassing a predetermined rewrite standard, and effective to allow a rewrite of said data in said storage unit in said written state according to said predetermined rewrite standard;

said control unit comprises:

a setting device setting a process flag in said storage portion representing said at least one state;

a measuring device measuring a delay time;

said data rewrite portion requesting a seed data from said electronic control portion;

said electronic control portion returning said seed portion to said data rewrite portion;

said data rewrite portion calculates a security password based upon said seed and transmit said security password to said electronic control portion;

said electronic control portion reviews said process flag;

said electronic control portion collates said security password when said process flag indicates said unwritten state;

said electronic control portion requires said predetermined delay time when said process flag indicates said written state;

a writing unit writing to said storage portion;

a determining unit determining whether said writing is complete; and

an updating unit updating said process flag upon said complete writing into said storage portion, whereby said process flag represents said other of said state.

10.   (Original) An apparatus according to claim 9, wherein:

said predetermined data rewrite standard defines a predetermined delay time for a security access from said data rewrite apparatus; and

when said processing flag represents that said storage unit is in said initial state, said control unit executes a data rewrite processing without a delay time.

11.   (Currently Amended)   A data rewrite system in which an electronic control apparatus and a data rewrite apparatus are in communication, and said electronic control apparatus comprises:

a storage unit in which operational data is written in an initial state and said operational data is rewritten in accordance with a predetermined data rewrite standard by communication with said external data rewrite apparatus;

a processing flag representing whether said storage unit is in said initial state; and

a control unit for controlling, on the basis of said processing flag, a first data write in said storage unit in said initial state and a rewrite of said operational data in said storage unit in accordance with said predetermined data rewrite standard;

wherein said means control unit comprises:

a setting unit setting a process flag in said storage portion representing said at least one state;

said electronic control portion measures a delay time;

said data rewrite portion requests a seed data from said electronic control portion;

said electronic control portion returns said seed portion to said data rewrite portion;

said data rewrite portion calculates a security password based upon said seed and transmits said security password to said electronic control portion;

said electronic control portion reviews said process flag;

said electronic control portion collates said security password when said process flag indicates said unwritten state;

said electronic control portion requires said predetermined delay time when said process flag indicates said written state;

a writing unit writing to said storage portion;

a determining unit determining whether said writing is complete; and

an updating unit updating said process flag upon said complete writing into said storage portion, whereby said process flag represents said other of said state.

12. (Original) A system according to claim 11, wherein:

after said data write in said initial state is successful, said control unit sets said processing flag to represent that said storage unit is not in said initial state.

13. (Original) A system according to claim 11, wherein:

said predetermined data rewrite standard defines a predetermined delay time for a security access from said data rewrite apparatus; and

when said processing flag represents that said storage unit is in said initial state, said control unit executes said data rewrite processing without said delay time.

14. (Currently Amended) A data rewrite method of rewriting data in an electronic control apparatus in a vehicle by a data rewrite apparatus outside said vehicle, comprising:

setting a processing flag to represent that no first data write in said electronic control apparatus is executed;

controlling, when a first data write in said electronic control apparatus is executed by communication between said electronic control apparatus and said data rewrite apparatus, the setting of said processing flag to represent that said first data write is executed;

executing said first data write in said electronic control apparatus on a basis of setting of said processing flag; and

rewriting said data which has already been written in said electronic control apparatus in accordance with a predetermined data rewrite standard on said basis of setting of said processing flag;

setting a process flag in said storage portion representing said at least one state;

causing said electronic control portion to start measuring a delay time;

causing said data rewrite portion to request a seed data from said electronic control portion;

causing said electronic control portion to return said seed portion to said data rewrite portion;

causing said data rewrite portion to calculate a security password based upon said seed and transmit said security password to said electronic control portion;

causing said electronic control portion to review said process flag;

collating said security password, by said electronic control portion, when said process flag indicates said unwritten state;

requiring, by said electronic control portion, said predetermined delay time when said process flag indicates said written state;

writing to said storage portion;

determining whether said writing is complete; and

updating said process flag upon said complete writing into said storage portion, whereby said process flag represents said other of said state.

15.   (Original) A method according to claim 14, wherein said setting step comprises a step of setting said processing flag after an end of said data write.

16.   (Currently Amended) A program for rewriting data in an electronic control apparatus in a vehicle by a data rewrite apparatus outside said vehicle, said program causing a computer to execute the following steps:

setting a processing flag to represent that no first data write in said electronic control apparatus is successfully executed;

controlling, when said first data write in said electronic control apparatus is executed by communication between said electronic control apparatus and said data rewrite apparatus, a setting of said processing flag to represent that a first data write is executed;

executing said first data write in said electronic control apparatus on a basis of setting of said processing flag; and

rewriting said data previously written in said electronic control apparatus in accordance with a predetermined data rewrite standard on said basis of setting of said processing flag;

setting a process flag in said storage portion representing said at least one state;

measuring, by said electronic control portion, a delay time;

requesting, by said data rewrite portion, a seed data from said electronic control portion;

returning, by said electronic control portion, said seed portion to said data rewrite portion;

calculating a security password based upon said seed and transmit said security password to said electronic control portion;

reviewing said process flag;

collating said security password when said process flag indicates said unwritten state;

requiring said predetermined delay time when said process flag indicates said written state;

writing to said storage portion;

determining whether said writing is complete; and

updating said process flag upon said complete writing into said storage portion, whereby said process flag represents said other of said state.

17.   (Original) A program according to claim 16, wherein said setting step comprises a step of setting said processing flag after an end of said data write.

18.   (Currently Amended) A computer readable recording medium which stores a program for rewriting data in an electronic control apparatus in a vehicle rewrite-able by a data rewrite apparatus outside said vehicle, said program causing a computer to execute the steps of:

setting a processing flag to represent that no first data write in said electronic control apparatus is executed;

setting, when said first data write in said electronic control apparatus is executed by communication between said electronic control apparatus and said data rewrite apparatus, said processing flag to represent that said first data write is executed;

executing said first data write in said electronic control apparatus on a basis of setting of said processing flag; and

rewriting said data, previously written in said electronic control apparatus in accordance with a predetermined data rewrite standard and on said basis said processing flag;

setting a process flag in said storage portion representing said at least one state;

measuring a delay time;

requesting a seed data from said electronic control portion;

returning said seed portion to said data rewrite portion;

calculating a security password based upon said seed and transmit said security password to said electronic control portion;

reviewing said process flag;

collating said security password when said process flag indicates said unwritten state;

requiring said predetermined delay time when said process flag indicates said written state;

writing to said storage portion;

determining whether said writing is complete; and

updating said process flag upon said complete writing into said storage portion, whereby said process flag represents said other of said state.

19.   (Original) A medium according to claim 18, wherein:

said setting step comprises a step of setting said processing flag after an end of said data write.

20.   (Currently Amended) A method for eliminating a time delay in initial programming of an electronic control system, comprising the steps of:

setting a flag to 0 in a new electronic control system;

detecting said 0 during a first run of said electronic control system to produce a reset signal;

setting said flag to 1 in response to said reset signal;

applying said 1 to all subsequent runs of said electronic control system; and

applying a predetermined time delay only in response to said 1, and applying zero time delay in response to said 0;

measuring a delay time;

requesting a seed data from said electronic control portion;

returning said seed portion to said data rewrite portion;

calculating a security password based upon said seed and transmit said security password to said electronic control portion;

reviewing said process flag;

collating said security password when said process flag indicates said unwritten state;

requiring said predetermined delay time when said process flag indicates said written state;

writing to said storage portion;

determining whether said writing is complete; and

updating said process flag upon said complete writing into said storage portion, whereby said process flag represents said other of said state.